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Claim Listing

1.   (canceled)

2.   (previously presented) The method of claim 20 wherein the service system server is located within the confines of a firewall of the local information network of the production plant.

3.   (previously presented) The method of claim 20 wherein the service system server treats the gathered data and processes the data into a format needed in servicing operations.

4.   (previously presented) The method of claim 20 wherein authorized users in the service unit and the production plant are identified by the IP addresses of the computers between which the communications connection is to be established and/or by ID codes and/or passwords of the computer operators.

5.   (previously presented) The method of claim 20 wherein the service unit is located geographically remote from the production plant.

6.   (previously presented) The method of claim 20 wherein information is collected to the service unit from a plurality of production plants.

7.   (previously presented) The method of claim 20 wherein the service system server sends information to the service unit in a standard format.

8.   (previously presented) The method of claim 20 wherein information submitted from the production plant is analyzed in the service unit.

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9. (previously presented) The method of claim 20 wherein operational recommendations are sent from the service unit to the production plant.

10. (previously presented) The method of claim 20 wherein information analyzed in the service unit is utilized for determining the timing of scheduled maintenance in the units of the production plant.

11. (previously presented) The method of claim 20 wherein data, video and/or audio signals are transferred between the production plant and the service unit.

12–18. (canceled)

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19.   (currently amended) A method for servicing a production plant selected from
the group consisting of a paper mill, a board mill, a pulp production plant, and a paper
finishing plant; comprising the steps of:
      gathering information related to manufacturing processes and machinery of the
            production plant by at least one information system, measurement unit, or
            production control unit;
      connecting a service system server to a local information network of the production
            plant;
      inputting said gathered information to the service system server;
      sending said input gathered information from the production plant by or through the
            Internet to a remote service unit, wherein the information submitted from the
            production plant is collected and analyzed;
      isolating said local information network of the production plant from the Internet by a
            firewall;
      isolating the information network of the service unit from the Internet by a firewall;
      transferring the information bidirectionally via the firewalls between the local
            information network of the production plant and the information network of
            the service unit in a secured format; and
      wherein data, and video and/or audio signals are transferred between the production
            plant and the service unit.

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20.   (currently amended) A method for servicing a production plant selected from
the group consisting of a paper mill, a board mill, a pulp production plant, and a paper
finishing plant; comprising the steps of:

continuously collecting data related to manufacturing processes and machinery of the
   production plant by at least one information system, measurement unit, or
   production control unit;

the information system, measurement unit, or production control unit further
   comprising:

   a process control system which receives selected target values of variables
      relating to the production of pulp, paper, board, or paper finishing, and
      gathers measurement data from process machinery of the paper mill,
      board mill, pulp production plant or paper finishing plant, and controls
      said process machinery;

   a production management system holding specifications of ordered products
      and passing information to the process control system;

   a maintenance information system which contains data on spare parts
      inventory; and

   a machinery condition monitoring system that logs process parameters
      including vibrations, circulating lubrication oil system, bearings, and
      cleanliness of fabrics;

submitting data from the process control system, the production management system,
   the maintenance information system, and the machinery condition monitoring
   system to a reporting system;

processing said data submitted to the reporting system into different types of
   formatted reports;

connecting a service system server to a local information network of the production
   plant;

inputting said gathered data related to manufacturing processes and machinery of the

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production plant to the service system server;

sending said input gathered data from the production plant to a remote service unit by

or through the internet, wherein the data submitted from the production plant

is collected and analyzed;

isolating said local information network of the production plant from the Internet by a

firewall;

isolating [[the]] an information network of the remote service unit from the Internet

by a firewall; and

transferring the data bidirectionally via the firewalls between the local information

network of the production plant and the information network of the remote

service unit in a secured format; and

scheduling maintenance periods based on the continuous data collection and

extending the periods when the units of machinery exhibit continuous

operation without any signs of malfunction;

anticipating future needs of servicing based on the continuous data collection showing

emerging malfunctions; servicing the production plant selected from the group

consisting of a paper mill, a board mill, a pulp production plant, and a paper

finishing plant; and installing spare parts installations before actual

malfunction occurs.

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